NPDES PERMIT NO. NM0030830
STATEMENT OF BASIS

FOR THE DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

I. APPLICANTS

Facility: J.C. Septic - Balliet

J.C. Septic Inc
John Vandamme – Operator
8401 Rancho Verano Ct. NW
Albuquerque, NM 87120

AND

Jean Balliet - Homeowner
HC 68 Box 62C
Taos, NM 87571

II. ISSUING OFFICE

U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

III. PREPARED BY

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IV. DATE PREPARED

June 21, 2006

V. PERMIT ACTION

First time issuance of a National Pollutant Discharge Elimination System (NPDES) permit.

Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed in Title 40, Code of Federal Regulations, revised as of June 1, 2006.

VI. DISCHARGE LOCATION

The facility is a private residence located at #25 Sarita St, Los Cordovas, Taos County, NM. The effluent from the site is discharged into an unnamed ditch, thence to the Rio Pueblo de Taos, thence to the Rio Grande in Segment No. 20.6.4.122 of the Rio Grande Basin. The discharge is located on that water at Latitude 36º 23.008' North and Longitude 105º 38.150' West, in Taos County, New Mexico.

VII. RECEIVING STREAM STANDARDS

The general and specific stream standards are provided in "New Mexico State Standards for Interstate and Intrastate Surface Waters," (20[illegible]4 NMAC, amended through February 16, 2006). The Rio Pueblo de Taos has designated uses of fish culture, coldwater aquatic life, irrigation, livestock watering, wildlife habitat and primary contact.

VIII. APPLICANT ACTIVITY

Under the Standard Industrial Classification (SIC) Code 4952, the discharge is from a private residence, treating sanitary wastewater equivalent to a POTW.

The treatment of the sanitary wastewater is through a Multi-Flo ™ (MTF) system. The MTF, a proprietary system, is a single tank, in-ground, de-centralized sanitary wastewater treatment device. The system uses aerobic digestion, filtration and ultraviolet (UV) light disinfection to treat sanitary wastewater from residential and small commercial sites. The design flow is 500 gallons per day (0.0005 MGD).

The MTF is designed to treat residential "greywater" and "blackwater." Greywater is essentially wastewater from sinks that do not have disposals systems, showers/tubs and laundry facilities. Blackwater is toilet wastes and food wastes derived from garbage grinders. The MTF system is not designed to treat other types of wastewater, such as but not limited to, automotive lubricants, concentrated detergents or unused or diluted house and yard pesticides, rodenticides and/or herbicides.

IX. PERMIT STAKEHOLDERS

Regulations in [40 CFR 122.21(a)] provide that NPDES permits are issued to owners/operators of the activity. Additionally, [40 CFR 122.21(b)] specifies that when a facility or activity is owned by one person but is operated by another person, it is the operators duty to obtain a permit. The application states that the MTF wastewater system will be owned and operated by J.C. Septic. J.C. Septic will be recognized as the Responsible Management Entity (RME) in the permit. However, the activities of the homeowner, Jean Balliet, have direct impacts on the MTF system and the RME, and since the two parties are not separated in the activity of the treatment, both shall be included in the permit. This is in accordance with [40 CFR 122.44(m)], "For a privately owned treatment works, any conditions expressly applicable to any user, as a limited co-permittee, that may be necessary in the permit issued to the treatment works to ensure compliance with applicable requirements under this part. Alternatively, the Director may issue

separate permits to the treatment works and to its users, or may require a separate permit application from any user. The Director's decision to issue a permit with no conditions applicable to any user, to impose conditions on one or more users, to issue separate permits, or to require separate applications, and the basis for that decision, shall be stated in the fact sheet for the draft permit for the treatment works."

When considered as a group, the RME and the homeowner shall be referred to as the stakeholders. The draft permit proposes that each of the stakeholders will be both "jointly and severally liable" for the terms and conditions set out in the permit. The permit will propose specific requirements/practices to each entity, as well as to the group (stakeholders).

The RME shall be the responsible party for correspondences, reports and contacts regarding the permit by either EPA and/or NMED. Duplicate notices will however be concurrently provided to the homeowner.

Any change in the ownership of either party must be provided both to EPA and NMED, in accordance with [40 CFR 122.61(b)]. Any other changes that go beyond the operator/homeowner relationship must also be made both to EPA and NMED, and could be subject to a modification of the permit.

X. SEWAGE SLUDGE PRACTICES

The application states that sludge produced at the site will be disposed of at an approved disposal site for treatment and disposal.

XI. EFFLUENT CHARACTERISTICS

The MTF has not been installed, and there isn't a discharge yet to perform analysis on. The manufacturer of the MTF system characterizes the discharge as "better than 95 percent removal of sewage contaminants."

XII. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

The proposed effluent limitations for those pollutants proposed to be limited are based on regulations promulgated at [40 CFR 122.44]. The draft permit limits are based on either technology-based effluent limits pursuant to [40 CFR 122.44(a)], on BPJ in the absence of guidelines, NM WQS and/or requirements pursuant to [40 CFR 122.44(d)], whichever are more stringent.

A. Reason for Permit Issuance

It is proposed that the permit be issued for a 5-year term following regulations promulgated at [40 CFR 122.46(a)]. The proposed permit expiration date will coordinate with the EPA Basin Statewide Management Approach to Permitting in New Mexico, adopted March 2, 2000. This program also known as the Statewide Basin Management Approach to permitting is a

comprehensive framework to better coordinate and integrate water resource management activities geographically by river basin.

The permit application was received on March 29, 2006, and was determined to be administratively complete June 20, 2006.

B. Effect of a Permit

Regulations at [40 CFR 122.5] state that … "The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege." Additionally, it further states … "The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations."

C. Technology-Based versus Water Quality Standards-Based Effluent Limitations and Conditions

Following regulations promulgated at [40 CFR 122.44], the draft permit limits are based on either technology-based effluent limits pursuant to [40 CFR 122.44(a)] or on State WQS and requirements pursuant to [40 CFR 122.44(d)], whichever are more stringent.

D. Technology-Based Effluent Limitations/Conditions

Regulations promulgated at [40 CFR 122.44(a)] require technology-based effluent limitations to be placed in NPDES permits based on effluent limitations guidelines where applicable, on BPJ (best professional judgment) in the absence of guidelines, or on a combination of the two.

Secondary treatment, established at [40 CFR 133.102(a)] and [40 CFR 133.102(b)] are 30 mg/l for the 30-day average and 45 mg/l for the 7-day average for both BOD_5 and TSS. These values are based on 85 percent removal efficiency. The manufacturer of the MTF system states that the system is capable of meeting 95 percent removal efficiency. Based on the BPJ of the permit writer, the technology-based limits for the permit are proposed using a 90 percent removal efficiency, which will allow the system to have statistical variation in its operation. Limitations at this percent removal are 20 mg/l, 30-day average and 30 mg/l, 7-day average, for both BOD_5 and TSS. Limitations on maximum and minimum pH are in accordance with [40 CFR 133.102(c)]. Mass loadings are not proposed in the draft permit, and the permit will require "Report" only for TSS and BOD_5. The technology-based limitations are concentration, and since the flow rate is very low, the draft permit will not require a flow-measuring device. The draft permit will propose estimated flow, again, based on BPJ and the very low flow rate. The concentration limits alone will be protective of technology-based effluent limits.

The manufacturer of the MTF system has shown that the basic unit can meet 530 coliform forming units (cfu's)/100 ml in its basic configuration. The MTF system for this application is being augmented with a UV light system for bacteria control. The specifications provided by the manufacturer states that the UV lamp "…reduces fecal coliform bacteria levels well below the most stringent US treatment standards." Further it states "Fecal coliform removal exceeds 3-logs – 99.9 percent – when the following conditions are met: The maximum flow is 3 gallons per

minute (gpm) or less, TSS is less than 30 mg/l and the BOD_5-day is less than 30 mg/l." The draft permit has previously established limits of 20 mg/l, 30-day average and 30 mg/l, 7-day average, for both BOD_5 and TSS. Current WQS for bacteria are established by measuring fecal coliform bacteria (FCB). The most stringent FCB standard in the state is 100 cfu/100 ml monthly geometric mean and 200 cfu/100 ml for a single sample. The proposed bacteria standard is E. coli. The most stringent E. coli standard in the state is 126 cfu/100ml monthly geometric mean, 235 cfu/100ml for a single sample. MTF units are capable of meeting these stringent standards, and based on BPJ of the permit writer, BAT performance-based levels will be established at the most stringent State WQS level. Until the E. coli WQS have been approved, both FCB and E. coli will be required to be monitored. When E. coli is approved as the bacteria standard, FCB will be discontinued in the permit.

Final Effluent Limits 0.0005 MGD design flow

EFFLUENT CHARACTERISTICS	**DISCHARGE LIMITATIONS**				
	Lbs/Day		**mg/l (unless noted)**		
Parameter	30-Day Avg.	7-Day Avg.	30-Day Avg.	7-Day Avg.	Daily Max.
Flow	N/A	N/A	Report GPD	Report GPD	N/A
BOD_5	Report	Report	20	30	N/A
TSS	Report	Report	20	30	N/A
E. coli bacteria	N/A	N/A	126 cfu (*1)	N/A	235 cfu (*1)
Fecal coliform bacteria	N/A	N/A	100 cfu (*1)	N/A	200 cfu (*1)
pH	N/A	N/A	6.0 – 9.0 standard units		N/A

FOOTNOTE:
*1 Colony forming units

E. Operation and Reporting

The applicant is required to operate the treatment facility at maximum efficiency at all times; to monitor the facility's discharge on a regular basis; and report the results quarterly. The monitoring results will be available to the public.

F. Sewage Sludge Practices

The permittee shall use only those sewage sludge disposal or reuse practices that comply with the federal regulations established in [40 CFR Part 503] "Standards for the Use or Disposal of Sewage Sludge". The specific requirements in the permit apply as a result of the design flow of the facility, the type of waste discharged to the collection system, and the sewage sludge disposal or reuse practice utilized by the treatment works.

Sludge testing information will be retained by the RME at its primary place of business for a minimum of five (5) years as required in the record keeping requirements section of Part IV, in accordance with NPDES Permit No. NM0030830.

G. Waste Water Pollution Prevention Requirements

The stakeholders shall institute programs directed towards pollution prevention. The stakeholders will institute programs to improve the operating efficiency and extend the useful life of the treatment system.

H. Industrial Wastewater Contributions

The discharge of any pollutant except for normal residential "greywater" and "blackwater" including, but not limited to, diluted common household detergents and personnel care products, will not be authorized by the proposed permit.

I. Monitoring Frequency for Limited Parameters

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity, [40 CFR 122.48(b)], and to assure compliance with permit limitations, [40 CFR 122.44(i)(1)]. Technology based pollutants; flow, BOD_5, pH E. coli and TSS, are proposed to be monitored once per month. EPA recognizes that testing for both E. coli and FCB is a financial burden on the permittee. The State has pending E. coli bacteria WQS that are to replace FCB. The Alaska Rule cited below requires that the permit contain both the new E. coli standard and the existing FCB. To lessen the burden on the permittee in compliance costs, FCB is being proposed to have monitoring at once per year. This is in accordance with regulations contained in [40 CFR 122.44(i)(2)] "…monitoring results shall be established on a case-by-case basis with a frequency dependent on the nature and effect of the discharge, but in no case less than once a year." The monitoring of E. coli will ensure that the discharge meets bacteria WQS.

J. Best Management Practices

Best Management Practices (BMP's) are narrative conditions that can aid in achieving permit compliance in addition to chemical specific limits. Regulations at [40 CFR 122.44] state that in addition to conditions established under [40 CFR 122.43(a)], each NPDES permit shall include conditions meeting the following requirements when applicable. The authority for BMP's are found at [40 CFR 122.44(k)(4)] which state that BMP's "…are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA."

The MTF system is capable of meeting stringent discharge limits, but only when operated and maintained within the manufacturers design specifications. Failure of decentralized wastewater systems such as the MTF system is most generally not from inadequate design or construction, but from improper operation, maintenance and/or the introduction of improper amounts and/or quantities of wastes.

The BMP's are for the homeowner and RME separately, and for the stakeholders (combined).

The draft permit proposes the following BMP's:

HOMEOWNER BMP'S:

Perform specified maintenance tasks at intervals recommended in the current manufacturers Owner Manual.

Report to the RME as soon as an operational problem with the MTF unit is observed.

Notify the RME if the system is to have an extended period of non-use defined as a minimum of four (4) weeks.

In residences equipped with a garbage disposal system, the homeowner shall minimize its use. Greater use of the disposal system increases the solids buildup in the system, decreasing effectiveness of the system.

Reduce/eliminate the following consumables from being disposed of into the system:

- Disposable baby diapers
- Sanitary napkins
- Rubber/plastic products
- Rags, grit, coffee grounds
- Wet-strength paper towels, flushable wipes
- Greases and oils
- Volatile substances
- Metals from home-based craft and hobbies
- Prescription and non-prescription medicines, dietary supplements, vitamins and minerals

Large daily flows that are in excess of the units design (500-gallons)

Other substances deleterious to the development and maintenance of the systems biological treatment process

Repair leaking plumbing fixtures, reducing excess flows to the unit

The disposal of household pesticides, rodenticides, herbicides, fungicides, paints and solvents into the MTF is prohibited

RME BMP'S:

The RME shall be certified as a Small Advanced Wastewater Operator in accordance with NMED Utility Operator Certification (20.7.4 NMAC) requirements. A certified operator shall do all routine operation and/or maintenance service work performed on the MTF unit.

The RME shall create a Maintenance and Operational Journal (MOJ). The MOJ shall report all inspections, maintenance activities, equipment servicing and/or replacement and other requirements that follow.

The MOJ shall be maintained at the RME's principal business address.

The RME shall make the MOJ available for inspection by EPA and/or NMED or their authorized representative.

Alarms must be maintained and operational at all times. The operator shall ensure that the remote alarm be functioning at each inspection of the system, but shall be performed at least once per month. The date of all inspections shall be entered into the MOJ.

The MTF system shall be serviced at a minimum once per six (6) months. The results of routine service shall be reported in the MOJ. All parts of the MTF shall be inspected during these semi-annual inspections, including but not limited to the filter socks, aeration pump, ultraviolet bulb, surge bowl gasket, utility pump and the weir. Take a sample of the mixed liquor for a settleable solids test. Record inspections in the MOJ; report in the MOJ the settleable solids results after 24 hours, recording the result in the MOJ.

The sludge shall be pumped at least once in four (4) years. The following shall be entered into the MOJ:

Date pumped out
Estimate volume of sludge removed either in gallons or weight.
Name of contractor performing the pump out, their address and telephone number
Final destination of sludge

When the unit is pumped out, the filter elements shall be inspected, and either replaced or cleaned. Dates of inspection, number of elements replaced and/or cleaned shall be noted in the MOJ.

The RME shall provide the homeowner with any updated owners manuals available from the manufacturer. Record in the MOJ when the owner manuals were provided to the homeowner.

The RME shall establish normal operation schedules, including, but not limited to, aeration run cycles.

STAKEHOLDERS BMP'S:

A management contract with a NMED certified RME is required. If the homeowner is NMED certified, then the homeowner can be the RME.

In the event of a voided management contract between the RME and the homeowner, broken by either party, then BOTH the homeowner and the RME shall notify both EPA and NMED in writing within 48 hours after such event.

Additionally, EPA and/or NMED or their designated agent is authorized to enter upon the private property at reasonable times and upon reasonable notice to conduct inspections, take samples and monitor compliance. In the event that the homeowner is physically absent from the property and cannot provide entry, the homeowner shall make arrangements with the RME to provide entry into the site.

K. Water Quality Based Limitations

1. General Comments

Effluent limitations and/or conditions established in the draft permit are in compliance with State water quality standards and the applicable water quality management plan.

2. Post Third Round Policy and Strategy

Section 101 of the Clean Water Act (CWA) states that "...it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited..." To insure that the CWA's prohibitions on toxic discharges are met, EPA has issued a "Policy for the Development of Water Quality-Based Permit Limitations for Toxic Pollutants 49 FR 9016-9019, March 9, 1984." In support of the national policy, Region 6 adopted the "Policy for Post Third Round NPDES Permitting" and the "Post Third Round NPDES Permit Implementation Strategy" on October 1, 1992. The Regional policy and strategy are designed to insure that no source will be allowed to discharge any wastewater which (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical State water quality standard resulting in nonconformance with the provisions of [40 CFR 122.44(d)]; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation which threatens human health.

3. Implementation

The Region is currently implementing its post third round policy in conformance with the Regional strategy. The NPDES permits contain technology-based effluent limitations reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations and/or conditions are included in the NPDES permits. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other available toxicity information to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls.

4. State Water Quality Numerical Standards

a. GENERAL COMMENTS

Stated previously, Rio Pueblo de Taos has designated uses of fish culture, coldwater aquatic life, irrigation, livestock watering, wildlife habitat and primary contact.

b. REVISED WATER QUALITY STANDARDS

The precertification document issued by the New Mexico Environment Department pursuant to Section 401 of the federal Clean Water Act is based upon the revised water quality standards currently effective under State law. In a letter from Marcy Leavitt (NMED) to Willie Lane (EPA) dated July 12, 2006, the State of New Mexico precertified that the discharge will comply with applicable p[illegible]sions of Sections 208(e), 301, 302, 303, 306 and 307 of the Clean Water

Act and with appropriate requirements of State law upon inclusion of the conditions stated below in the permit.

The NM WQCC adopted new WQS for the State of New Mexico. The revised WQS as amended through July 17, 2005, are available on the NMED's website at http://www.nmenv.state.nm.us/swqb/Standards/20.6.4NMAC.pdf The WQCC established the revised WQS in accordance with, and under authority of, the NM Water Quality Act [Chapter 74, Article 6, NMSA 1978 Annotated]. The WQS have not been approved by EPA in accordance with Section 303 of the CWA.

In accordance with State law, the Water Quality Standards (WQS) were properly filed with the State Records Center and publicly noticed in the NM Register May 13, 2005. The revised WQS became effective under State law on May 23, 2005, and Standards were amended through February 16, 2006. The NMED has a non-discretionary duty to base state certification of federal water quality permits on applicable requirements of State law.

The agency is constrained by the Alaska Rule [Alaska Clean Water Alliance v. Clark, No. C96-1762R (W.D. Wash.)] in implementing the new NM WQS, until such time as the revised NM WQS are fully approved by EPA pursuant to Section 303 of the Clean Water Act. However, according to EPA memorandum from Geoffrey H. Grubbs, Director Office of Science and Technology dated September 15, 2000, if a State or tribe bases a section 401 certification on the more stringent state requirement, as allowed under CWA section 401(d), EPA would put the effluent limitations specified in the certification into an EPA-issued permit.

The Region, where appropriate, will draft permits with the new standards in place. If the new standards make more restrictive a limit, a compliance schedule will be placed in the permit. If a new parameter were added to the standards that would be added to the permit, then it would also get a compliance schedule. If the standard were less stringent than the currently approved standard, the Region would put the effluent limitation specified in the current Standards, until EPA approves the revised Standards. In addition, if the Region were required under a 401 certification to replace an effluent limitation of a pollutant for another effluent limitation of similar nature, the agency would include effluent limitations of both pollutants until the agency approves the revised Standards. However, the agency will grant a compliance schedule to allow the permittee sufficient time to achieve effluent limitation for the new parameter.

c. REASONABLE POTENTIAL

All POTW’s are required to fill out appropriate sections of the Form 2A, to apply for an NPDES permit or reissuance of an NPDES permit. The new form is applicable not only to Publicly Owned Treatment Works (POTW’s) and to facilities that are similar to POTW’s, but which do not meet the regulatory definition of “publicly owned treatment works” (like private domestics, or similar facilities on Federal property). The forms were designed and promulgated to “make it easier for permit applicants to provide the necessary information with their applications and minimize the need for additional follow-up requests from permitting authorities,” per the summary statement in the preamble to the Rule. These forms became effective December 1,

1999, after publication of the final rule on August 4, 1999, Volume 64, Number 149, pages 42433 through 42527 of the FRL.

The amount of information required for minor facilities was limited to specific sections of these forms, because they are unlikely to discharge toxic pollutants in amounts that would impact state water quality standards. Supporting information for this decision was published as "Evaluation of the Presence of Priority Pollutants in the Discharges of Minor POTW's," June 1996, and was sent to all state NPDES coordinators by EPA Headquarters. In this study, EPA collected and evaluated data on the types and quantities of toxic pollutants discharged by minor POTW's of varying sizes from less than 0.1 MGD to just under 1 MGD. The Study consisted of a query of the EPA Permit Compliance System (PCS) database from 1990 to present, an evaluation of minor POTW data provided by the State agencies, and on-site monitoring for selected toxics at 86 minor facilities across the nation.

PCS and the study showed that minor POTW's below 0.1 MGD comprise 40 % of all POTW's that serve very small communities and contribute a small amount of flow, generally with no industrial users. Of the facilities sampled in the study, which discharged one of the priority pollutants screened, all tested near or lower than the most stringent national water quality criterion. The most commonly detected pollutants were total phenolics (at 100% of facilities), zinc (at 92% of facilities), copper (at 64% of facilities), and lead (at 32.6% of facilities), with other pollutants detected at less than 10% of the study facilities, and with beryllium, mercury, and cyanide not detected at any of the facilities. Comparison of the effluent pollutant concentration data directly to water quality criteria did not take into account dilution, and did not consider other site specific factors such as hardness, temperature, turbidity, salinity, etc. This was considered an overly conservative approach by the study, but used as such to illustrate the extremely low reasonable probability these facilities had to violate state water quality standards. Due to the information supplied in the application, the Agency has determined that no reasonable potential exists for this discharge to violate applicable NM WQS, beyond pH and E. coli.

d. PERMIT ACTION - WATER QUALITY-BASED LIMITS

Regulations promulgated at [40 CFR 122.44(d)] require limits in addition to, or more stringent than effluent limitation guidelines (technology based). NM WQS that are applicable for this discharge are based on 20.6.4 NMAC.

Stream segment specific (20.6.4.122 NMAC) WQS for pH are more restrictive than the technology-based limits presented earlier, the draft permit will propose the water quality limits in the draft permit.

The water quality limits for the discharge is as follows:

EFFLUENT CHARACTERISTICS	**DISCHARGE LIMITATIONS**			
	lbs/day	**lbs/day**	**mg/l (unless noted)**	**mg/l (unless noted)**
Parameter	30-Day Avg	7-Day Avg	30-Day Avg	Daily Max
pH	N/A	N/A	6.6 – 8.8 standard units	

5. Monitoring Frequency for Limited Parameters

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity [40 CFR 122.48(b)] and to assure compliance with permit limitations [40 CFR 122.44(i)(1)]. The monitoring frequencies are based on BPJ based on the facility's flow rate. The pollutant pH is proposed in the draft permit to be sampled once/month.

6. Whole Effluent Toxicity Limitations

a. GENERAL COMMENTS

The State has established narrative criteria, which in part state that

"...surface waters of the state shall be free of toxic pollutants from other than natural causes in amounts, concentrations or combinations that affect the propagation of fish or that are toxic to humans, livestock or other animals, fish or other aquatic organisms, wildlife using aquatic environments for habitation or aquatic organisms for food, or that will or can reasonably be expected to bioaccumulate in tissues of fish, shellfish and other aquatic organisms to levels that will impair the health of aquatic organisms or wildlife or result in unacceptable tastes, odors or health risks to human consumers of aquatic organisms...." (NM WQS Section 20.6.4.13.F.)

The Implementation Guidance for NM Standards state that:

"Biomonitoring requirements will be applied to all major dischargers and those minor dischargers with known or potential problems to cause or contribute to exceedances of applicable [NM Standards] numeric or narrative water quality criteria in waters with existing or designated fishery uses" (Section VI. Narrative Toxics Implementation)

In a letter from Marcy Leavitt, NMED, to Claudia Hosch, EPA, December 16, 2005, NMED provided Narrative Toxics Implementation Guidance – Whole Effluent Toxicity, (NTIG-WET), an update to the 1995 Implementation Guidance. Since the designated use of stream segment 20.6.4.122 is quality coldwater aquatic life, the NTIG-WET plan requires a biomonitoring test.

EPA and NMED have determined that to cover the wide range of receiving waters, being protective of WQS and recognizing staff resources, the critical dilution for the MTF wastewater treatment systems will be established at 9%. This is based on a conservative 4Q3 low flow for the receiving stream of 0.005 MGD (5,000 gallons per day) and the design flow of the facility of 0.0005 MGD (500 gallons per day). Using procedures contained in the IG, the critical dilution is calculates as:

$C_d = (Q_e \div (FQ_a + Q_e)$

Where:
Q_e = the treatment facility flow determined above, 0.0005 MGD
Q_a = the critical low-flow determined above, 0.005 MGD

F = the fraction of stream allowed for mixing, and for site specific streams, when conditions such as climatic conditions, channel characteristics and morphology are not known, a value of 1.0 is used.

C_d = (0.0005 ÷ {(1.0*0.005) + 0.0005}

C_d = 9.1% (Rounded to 9%)

This protocol will be protective of all the possible discharge locations contained in the NTIG-WET. Since the critical dilution is less than 10%, in lieu of using a 7-day chronic test at 9%, the facility will do a less expensive acute test using a 10:1 acute-to-chronic ratio. The biomonitoring test will be an acute test using a 90% critical dilution. The effluent concentrations using a 75% dilution series are 28%, 38%, 51%, 68%, and 90%. The test species will be the Pimephales promelas and Daphnia pulex. The test frequency will be once per permit term, with the test to occur between November 1 and April 30.

EFFLUENT CHARACTERISTIC	**DISCHARGE MONITORING**	
WHOLE EFFLUENT TOXICITY TESTING (48-Hr. Static Renewal) (*1)	**30-DAY AVG. MINIMUM**	**24-HR. MINIMUM**
Pimephales promelas	Report	Report
Daphnia pulex	Report	Report

EFFLUENT CHARACTERISTIC	**MONITORING REQUIREMENTS**	
WHOLE EFFLUENT TOXICITY TESTING (48-Hr. Static Renewal) (*1)	**FREQUENCY**	**TYPE**
Pimephales promelas	Once/Term (*2)	Grab
Daphnia pulex	Once/Term (*2)	Grab

FOOTNOTES:

*1 Monitoring and reporting requirements begin on the effective date of this permit. See Part II, Whole Effluent Toxicity Testing Requirements for additional WET monitoring and reporting conditions.

*2 Once per permit-term. The discharge shall be tested between November 1 and April 30 following the permit effective date.

As with EPA's draft 2006 WET language for NM minors, the following language would also be included:

"This permit does not establish requirements to automatically increase the WET testing frequency after a test failure, or to begin a toxicity reduction evaluation (TRE) in the event of multiple test failures. However, upon failure of any WET test, the permittee must report the test results to NMED, Surface Water Quality Bureau, in writing, within 5 business days of notification the test failure. NMED will review the test results and determine the appropriate action necessary, if any."

In the event of a toxic result (50% or greater mortality at test termination), EPA and/or NMED would have the option of asking for additional tests, increasing the number of effluent dilutions used in those tests, and ultimately requiring a TRE.

XIII. 303(d) LIST

The receiving stream, Rio Pueblo de Taos is listed on the current "2004 - 2006 State of New Mexico 303(d) List for Assessed River/Stream Reaches Requiring Total Maximum Daily Loads (TMDLs)" for stream bottom deposits and temperature. Stream bottom deposits (SBD) are primarily caused by surface disruptions such as off-road and all-terrain vehicle use. Additionally, flow reduction caused by agriculture use lowers the streams ability to transport sediments. Lastly, EPA believes that sediments from wastewater treatment systems do not contribute to SBD's. Therefore, no additional effluent requirements are proposed for the permit for this parameter. Temperature is impacted by exposure to the sun, and temperature is not a pollutant of concern from this facility. No additional requirements will be required for temperature. A standard reopener clause is established in the permit that would allow additional conditions if a TMDL is revised, and/or new water quality standards established.

XIV. ANTIDEGRADATION

The NMAC, Section 20.6.4.8 "Antidegradation Policy and Implementation Plan" sets forth the requirements to protect designated uses through implementation of the State water quality standards. The limitations and monitoring requirements set forth in the proposed permit are developed from the State water quality standards and are protective of those designated uses. Furthermore, the policy sets forth the intent to protect the existing quality of those waters, whose quality exceeds their designated use. The permit requirements and the limits are protective of the assimilative capacity of the receiving waters, which is protective of the designated uses of that water, NMAC Section 20.6.4.8.A.2.

XV. ANTIBACKSLIDING

The proposed permit is a first time issuance.

XVI. ENDANGERED SPECIES CONSIDERATIONS

According to the most recent county listing available at US Fish and Wildlife Service (USFWS), Southwest Region 2 website, http://ifw2es.fws.gov/EndangeredSpecies/lists/, four species in Taos County are listed as endangered or threatened. The Black-footed ferret (*Mustela nigripes*) and Southwestern willow flycatcher (*Empidonax traillii extimus*) are listed as endangered; and the Bald eagle (*Haliaeetus leucocephalus*) and Mexican spotted owl (*Strix occidentalis lucida*) are listed as threatened.

EPA has reviewed the available information regarding impacts of this action on listed species and designated critical habitat. EPA has determined that the issuance of this permit will have "no effect" on listed threatened and endangered species nor will destroy nor adversely modify designated critical habitat. A discussion of the species, threats to its survival and a brief discussion of potential effects is as follows:

The U.S. Fish and Wildlife Service listed the black-footed ferrets as endangered in 1967. Research of the black-footed ferret finds that the species has diminished due to the eradication of

prairie dogs, the primary source of the ferret's habitat and food. Main causes of the decline in the ferret population included habitat conversion for farming; efforts to eliminate prairie dogs, which competed with livestock for available prairie forage; and sylvatic plague, a disease that wiped out large numbers of prairie dogs and has also killed ferrets. Reintroduced black-footed ferrets have been designated as "non-essential experimental" populations under the Endangered Species Act. This designation allows, Federal, State, and Tribal resource managers, and private citizens more flexibility in managing new populations. The "non-essential, experimental" designation does not limit land uses such as forest management, agricultural practices, sport-hunting, and non-consumptive outdoor recreation. The NPDES program regulates discharge of pollutants and does not regulate forest management practices and agricultural practices. Issuance of this permit will have no effect on the Black-footed Ferret food source or habitat.

Southwestern Willow Flycatchers habitat occurs in riparian areas along streams, rivers, and other wetlands where dense willow, cottonwood, buttonbush and arrowweed are present. The primary reason for decline is the reduction, degradation and elimination of the riparian habitat. Other reasons include brood parasitism by the brown-headed cowbird and stochastic events like fire and floods that destroy fragmented populations. The permit does not authorize activities that may cause destruction of the flycatcher habitat, and issuance of the permit will have no effect on this species.

Along with habitat destruction, organochlorides (namely DDT) have been indicated as a cause of population decreases in the Bald Eagle. EPA's belief is that issuance of the permit will have no effect on the Bald Eagle as effluent from minor domestic water treatment facilities is not expected to contain organochlorides, nor should issuance of the permit impact the habitat of this species.

Research of available materiel finds that the primary cause for the population decreases leading to threatened status for the Mexican Spotted Owl is destruction of habitat. No pollutants are identified which might affect species habitat or prey species and are not limited by the permit. Catastrophic fires and elimination of riparian habitat also were identified as threats to species habitat. The NPDES program regulates the discharge of pollutants and does not regulate forest management practices and agricultural practices, which contribute to catastrophic fires and elimination of riparian habitat, and thus, species habitat. The issuance of this permit is found to have no impact on the habitat of this species.

XVII. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

The issuance of the permit should have no impact on historical and/or archeological sites since the only construction that would be required on the home-site that hasn't already been disturbed is a small 6-foot by 6-foot by 5-foot deep hole to place the unit.

XVIII. PERMIT REOPENER

The permit may be reopened and modified during the life of the permit if relevant portions of New Mexico's Water Quality Standards for Interstate and Intrastate Streams are revised or remanded by the New Mexico Water Quality Control Commission. In addition, the permit may

be reopened and modified during the life of the permit if relevant procedures implementing the Water Quality Standards are either revised or promulgated by the New Mexico Environment Department. Should the State adopt a State water quality standard, and/or develop or amend a TMDL, this permit may be reopened to establish effluent limitations for the parameter(s) to be consistent with that approved State standard and/or water quality management plan, in accordance with [40 CFR 122.44(d)]. Modification of the permit is subject to the provisions of [40 CFR 124.5].

XIX. VARIANCE REQUESTS

No variance requests have been received.

XX. CERTIFICATION

The permit is in the process of certification by the State agency following regulations promulgated at [40 CFR 124.53]. A draft permit and draft public notice will be sent to the District Engineer, Corps of Engineers; to the Regional Director of the U.S. Fish and Wildlife Service and to the National Marine Fisheries Service prior to the publication of that notice.

XXI. FINAL DETERMINATION

The public notice describes the procedures for the formulation of final determinations.

XXII. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

A. Application(s)

EPA Application Form 2A received March 29, 2006. Amended application materials submitted June 12, 2006.

B. 40 CFR Citations

Sections 122, 124, 125, 133, 136

C. State of New Mexico References

New Mexico State Standards for Interstate and Intrastate Surface Water, 20.6.4 NMAC, as amended through February 16, 2006.

Region 6 Implementation Guidance for State of New Mexico Standards for Interstate and Intrastate Stream, May 1995.

Statewide Water Quality Management Plan, December 17, 2002.

State of New Mexico 303(d) List for Assessed Stream and River Reaches, 2004 - 2006.

D. Miscellaneous References

EPA Region 6 "Policy for Post Third Round NPDES Permitting" and "Post Third Round NPDES Permit Implementation Strategy," October 1, 1992.

Letter from Marcy Leavitt, NMED to Willie Lane, EPA, July 12, 2006, State General Certification for the permit.